Serial No. 10/531,363 Docket No. 4819-4738

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

 (Currently amended) A method for recovery of metals, in particular copper, from copper-bearing raw material containing also other valuable metals, iron, and sulphur, the method comprising:

> leaching said raw material into an aqueous solution of copper chloride and hydrochloric acid in a leaching stage;

adjusting a redox potential of a copper-containing raw material leach in the leaching stage using a feed of an oxydating agent to the range of 480 – 500 mV with regard to a Ag/AgCl electrode, whereby iron and sulphur remain in a deposit formed in leaching and the copper in the aqueous solution is mainly divalent;

feeding the aqueous solution coming from the leaching stage to the first extraction stage of a two-stage liquid-liquid extraction stage;

extracting, in the first extraction stage, copper from the aqueous solution coming from the leaching stage into a first <u>copper-depleted</u> organic extraction solution while the other valuable metals remain in the aqueous solution coming from the leaching stage;

partitioning the aqueous solution coming from the first extraction stage into a first part and a second part;

feeding the first part of the aqueous solution back to the leaching stage;

neutralizing the second part of the aqueous solution;

Serial No. 10/531,363 Docket No. 4819-4738

feeding the neutralized aqueous solution into the second extraction stage:

extracting, in the second extraction stage, copper from the neutralized aqueous solution into a second <u>copper-depleted</u> organic extraction solution while the other valuable metals remain in the neutralized aqueous solution;

transferring the a first organic extraction solution and a second organic extraction solution solutions to a stripping stage where copper is transferred from the first and second organic extraction solutions into an aqueous solution of sulphuric acid forming a copper-depleted organic extraction solution; and

transferring the copper-depleted organic extraction solution to: the first extraction stage forming the first copper-depleted organic extraction solution and the second extraction stage forming the second copper-depleted organic extraction solution; and

feeding the aqueous solution of sulphuric acid from the stripping stage to an electrowinning stage for recovery of elemental copper.

- (Previously presented) The method according to claim 1, wherein the oxydating agent is oxygen.
- (Previously presented) The method according to claim 1, wherein the oxydating agent is air.
- 4-7. (Cancelled)
- (Previously presented) The method according to claim 1, wherein the extraction temperature is less than or equal to about 40°C.
- (Previously presented) The method according to claim 1, wherein the aqueous solution
 of sulphuric acid fed to the stripping stage comprises a return acid from the copper
 electrowinning stage.

Serial No. 10/531,363 Docket No. 4819-4738

(Previously presented) The method according to claim 1, further comprising
precipitating the other valuable metals from the aqueous solution coming from the second
extraction stage using alkali hydroxide precipitation.

- (Previously presented) The method according to claim 1, wherein the copper-bearing raw material comprises gold and/or platinum group metals.
- 12. (Previously presented) The method according to claim 11, further comprising precipitating the gold and/or platinum group metals in connection with precipitation of sulphur and iron, the gold and/or platinum group metals being recovered from a precipitate deposit during a sulphur flotation stage.
- (Previously presented) The method according to claim 1, wherein a pH value in the leaching stage is at least 1.5.
- (Previously presented) The method according to claim 10, wherein the other valuable metals are selected from the group consisting of nickel, cobalt and zinc.
- 15. (Previously presented) The method according to claim 10, further comprising treating the aqueous solution coming from the precipitation step with sulphuric acid whereby hydrochloric acid is obtained; and feeding the treated aqueous solution back to the leaching stage.